

Date: Thu, 4 Nov 93 03:59:19 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1308
To: Info-Hams

Info-Hams Digest Thu, 4 Nov 93 Volume 93 : Issue 1308

Today's Topics:

 ** wanted ** Miller 2002 loopstick or equiv.
 characteristic impedance
 EMI/RFI from Hidden Fence
 How to monitor police digital communications
 Inverting LCD Displays
 Mobile Transceiver Installation Guide?
 Observations on Kenwood TH-78
 Questions about Yaesu FT-411E
 TS 430 as mobile
 WARNING: Potential Geomagnetic Storm Warning - 04 November
 Was 'Vanity' Call Signs, now paying for call signs
 We've lost him, Jim!

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 3 Nov 93 22:54:21 GMT
From: concert!samba.oit.unc.edu!not-for-mail@rutgers.rutgers.edu
Subject: ** wanted ** Miller 2002 loopstick or equiv.
To: info-hams@ucsd.edu

I am looking for several of these for a crystal radio project for a class.
Please email Happy Thanksgiving to the net.....73 de ab4vj ..

** Terry Murphy de AB4VJ Hallicrafters and Keys Adopted - Inquire within **
** PO Box 61971 DurHAM,NC 27705-1971 (919)471-4018 HM (919) 544-5729 Work **

** email to Terry.Murphy@launchpad.unc.edu Go Heels !! **
** packet to ab4vj@kb4wga #dur.NC.USA or 14.188 RTTY Sundays **

--

The opinions expressed are not necessarily those of the University of
North Carolina at Chapel Hill, the Campus Office for Information
Technology, or the Experimental Bulletin Board Service.
internet: laUNCHpad.unc.edu or 152.2.22.80

Date: Wed, 3 Nov 1993 23:47:59 GMT
From: spool.mu.edu!howland.reston.ans.net!math.ohio-state.edu!cs.utexas.edu!
swrinde!emory!kd4nc!ke4zv!gary@decwrl.dec.com
Subject: characteristic impedance
To: info-hams@ucsd.edu

In article <claude.752056704@bauv106> claude@bauv.unibw-muenchen.de (Claude
Frantz) writes:

>What is the preferred method to measure the characteristic impedance
>of a coax line ?

The preferred method is with a network analyzer, but few of us have
them. Here are a couple of methods that work.

Measure the SWR of the line with the far end unterminated. This will
let you calculate line loss. This'll work even if your meter is of a
different characteristic impedance since infinity to 1 is still infinity
to 1 no matter what small difference there may be in the 1. Now terminate
the line in a known impedance. Measure the SWR and calculate what the line
impedance should be to give that reading. Now correct that for the difference,
if any, caused by your meter's impedance. That's your cable impedance.

If you're measuring at a relatively low frequency, there's another way.
Just terminate the line with a variable carbon resistor, feed a wee bit
of power up the line, and "dip" the SWR reading with the pot. The pot's
value will be the line's characteristic impedance regardless of the
meter impedance.

Gary

--

Gary Coffman KE4ZV	"If 10% is good enough	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	for Jesus, it's good	uunet!rsiatl!ke4zv!gary
534 Shannon Way	enough for Uncle Sam."	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-Ray Stevens	

Date: 2 Nov 93 16:03:40 EST
From: psinnntp!arrl.org@uunet.uu.net
Subject: EMI/RFI from Hidden Fence
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, fms@sw.stratus.com (Faith Senie) writes:

>Thread history about Invisible Fence and squooshed dog deleted.

>> Now, I *HOPE* that the receivers on the collar are very, very immune to
>> front-end overload, etc. Either blocking or falsing could have serious
>> results, indeed. This seems like something that would be worth a few
>> tests.

>I suspect that the collar receivers are NOT terribly immune to front-end
>overload. When my folks got themselves a new dog a few years ago, they had
>one of those invisible fences installed at the house. Duke was lying on
>the floor under the TV set one evening, wearing his receiver collar, when
>Dad turned on the TV. Poor dog went ballistic. Apparently either the TV
>was overloading his collar, or else the magnetic field around the TV was
>inducing currents in the collar, and he was getting zorched. Ever since
>then, my folks have only put the collar on him when he goes outside, so
>that nothing in the house would hurt him like that again.

Hello, Faith,

Well, there is probably a strong 15.75 kHz em field around most TVs,
the frequency of the horizontal sweep. The horizontal sweep waveforms
are rich in harmonics (appearing as a rough buzz every 15 kHz even
in HF bands). The Hidden Fence receiver is approximately 32 kHz, so
it is real close. Either the 15 kHz fundamental, or harmonics, are
activating the collar.

This is much like the feeling I get when I am wearing my tie at work --
I wonder if . . .

73 from your friend at ARRL HQ, Ed

Ed Hare, KA1CV
American Radio Relay League
225 Main St.
Newington, CT 06111
(203) 666-1541 - voice
ARRL Laboratory Supervisor
RFI, xmtr and rcvr testing

ehare@arrl.org

If you tie a strip of colored cloth to
part of your body, the tribe acts
differently!

Date: 4 Nov 93 02:16:42 GMT
From: ogicse!uwm.edu!news.moneng.mei.com!howland.reston.ans.net!agate!
iat.holonet.net!bwilkins@network.ucsd.edu
Subject: How to monitor police digital communications
To: info-hams@ucsd.edu

ez006683@othello.ucdavis.edu (Daniel D. Todd) writes:

: Hello All,
: Well I'm not corrupt, gay, a no-coder or even cruel to animals but I am
interested in monitoring
: digital public safety transmissions and digital SCA transmissions. What are tehe
transmission schemes? I am
: now building the the 741 decoder and have some software for it. Is there police
or sca decoder doftware
: available out there? cuold I decode any of this stuff w/my TNC-2? If you are
afraid of disseminating this on
: the whole net feel free to e-mail it to me. If you are really paranoid you can
even send for a copy of my
: public key!
:
: cheers and 73
: Dan

Well I don't know...If you are not c, g, n-c, or cta why do you want to
decode mdts?

Start by finding a signal. If you are at Davis try 453.725 on Mount Vaca.
Get yourself a 4800 baud modem for your tnc. Then put the bits in the
proper order ;) Most mdt s are just like amateur packet...only the bit
order is changed.

Good luck in the contest

--

Bob Wilkins n6fri voice 440.250+ 100pl san francisco bay area
bwilkins@cave.org packet n6fri @ n6eeg.#nocal.ca.usa.na

Date: 4 Nov 93 07:43:13 GMT
From: news-mail-gateway@ucsd.edu
Subject: Inverting LCD Displays
To: info-hams@ucsd.edu

miles@mbs.telesys.utexas.edu
wrote:

>The Visar has an LCD channel display mounted on top at a 45-degree angle,
>so it is visible from above (if the radio is in your shirt pocket) or from
>the front (if you have it in your hand). Of course, that means that the
>display must be upside down from one or the other position.

>The neat feature is an invert button. Press it and the characters in the
>display electronically invert! No need to read upside-down numbers!

Just wanted to add, that the Visar is not the first radio that can invert the LCD display. The Motorola MT-1000 (99 channel version) is also able to invert it's display. The way this is done is the user holds down the 'up' and 'down' buttons together while turning on the radio.

Another neat feature about the radio was it's "MAN DOWN" option. The option transmitted an 'alert' code/tone when the radio is layed horizontally for more than x amount of time. It has a defeatable switch. Great for law enforcement agencies who hang out in bad neighborhoods - less practical for Amateur Radio.

Some other great Motorola radio features that I'd like to see incorporated into ham radio equipment are:

- Minimum Volume settings. Motorola radios by default are not be set to zero volume. This can be changed on newer models but the reason they do this is so a call can not be missed by accidentally turning down th volume.
- 'Reverse-burst' PL. When 2 motorola radios talk to eachother in the PL encode/decode mode, they totally elliminate any squelch-tail noise bursts.
- Some beepers include a mechanical vibrator - great for extremely noisy environments or at times when silence is perfered. This can just as well be built into an HT.
- Anti-theft features:
Motorola HT's lose their programmed DES/DVP encryption codes when the battery is removed for x amount of time. On SABER models, the user can program a PASSWORD that is required each time the radio is turned on. Similar features can be built into ham equipment that renders it useless until a code is entered. (feature could be user selectable) Similarly, (I don't know if this exists yet) if a radio is stolen, a secret code can be transmited that would cause the radio to go into transmit mode continuously or on a selected duty cycle. (providing of course that the radio is on). DF equipment can then be used for the 'seek and destroy' mission.

I haven't seen the "Visar" yet. Someone said it's the smallest Motorola HT ever. Does anyone remember the HT-100 ? (it was about the size of

a small pack of cigarettes and put out 100 mW) From the days of the legendary HT-220.

73,
Rich
WB2JBS

Disclaimer: My employer is not responsible for my opinions

Date: 2 Nov 1993 14:17:39 -0500
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
vixen.cso.uiuc.edu!sdd.hp.com!hpsc.it.sc.hp.com!hpuerca.atl.hp.com!hpuerca!
edh@network.ucsd.edu
Subject: Mobile Transceiver Installation Guide?
To: info-hams@ucsd.edu

In <CFtzW7.JEW@tc.fluke.COM> pwl@tc.fluke.COM (Paul Lutt) writes:

>I just purchased a 1994 Ford Ranger pickup and I want to transfer my
>2-meter mobile rig to it. Does anyone know if Ford has any literature
>available recommending how to install two-way radio equipment?

<stuff deleted to save net.bandwidth>

If it's literature you need, your owners guide that came with the Ranger has about all you'll find in print from Ford on the subject. It is oriented toward "that other type of radio", but basically says do not use too much power. At least mine did. And the dealer couldn't help find any better info "officially". Unofficially, the service manager assured me that with proper installation I shouldn't have any problems hf or vhf/uhf. In either case, he wouldn't refuse to service the truck just because I put a radio in it.

I have details on what I ended up doing. It conforms to "proper installation" and good practices as applied specifically to the Ford Ranger pickup. And (since mine is a '92, I guess I've got a pretty good track record with it :-) No failures to date!

Cheers & 73 Ed Humphries N5RCK
Hewlett-Packard NARC Atlanta GA
edh@hpuerca.atl.hp.com

Date: 4 Nov 93 02:41:36 GMT

From: orca.es.com!cnn.sim.es.com!usenet@uunet.uu.net
Subject: Observations on Kenwood TH-78
To: info-hams@ucsd.edu

In <CFvzJ8.KDt@kaiwan.com> andrew@kaiwan.com writes:

> I decided to "test-drive" a friend's 78 one day, and was truly
> dissappointed. On top of the disgustingly poor intermod rejection,
> the battery life was nil, even though it was a fresh battery that
> had been fully charged the day before. I think it died on me within
> about 4 hours, and I wasn't talking all that much.

I agree with your front end intermod observations, however, in my area
its not much of a problem. What is unusual is the poor battery performance.
I find it hard to run mine down! I have the 1100 ma extended battery pack
and it never seems to go down. I have owned several HT's and the TH-78
has the best battery life of anything I've owned.

My only complaint with the thing is I can't remember how to do all the
features unless I have a manual with me.

Fred Orrell
WB5NOE

Date: 4 Nov 93 01:18:45 GMT
From: ogicse!flop.ENG.RORST.EDU!mundania.CS.ROST.EDU!kayd@network.ucsd.edu
Subject: Questions about Yaesu FT-411E
To: info-hams@ucsd.edu

The best way to hook the FT-411E up to power is to get the cigarette lighter
adapter and then make a connection to a power supply of 3 amps or so.
The 'E' model has an enhanced processor that works a little better is all..

Darrek Kay
Kayd@Prism.cs.orst.edu
(503)737-9410

Date: 4 Nov 93 02:46:58 GMT
From: ogicse!uwm.edu!news.moneng.mei.com!howland.reston.ans.net!noc.near.net!
news.delphi.com!usenet@network.ucsd.edu
Subject: TS 430 as mobile
To: info-hams@ucsd.edu

You need a good HF mobile antenna, with a good ground to the car. The rig will reduce it's output if the SWR is too high. I've had no failures with the final. The noise blanker works well against ignition noise, but some cars (including my escort) put out a lot of RFI from the electronic fuel pump, which requires a dealer installed fix (to the fuel pump, not the TS-430). I've not needed an external speaker. I don't use the mounting bracket - the rig rides on the seat next to me. Have fun.

Walt W3FG

ISSUED: 06:30 UT, 04 NOVEMBER

POTENTIAL DURATION OF GEOMAGNETIC STORM: 48 TO 72 HOURS

POTENTIAL FOR MIDDLE LATITUDE HF DEGRADATION: HIGH
POTENTIAL SEVERITY OF HF DEGRADATION: MAJOR

EXPECTED HF PROPAGATION CONDITIONS: FAIR - OCCASIONALLY VERY POOR

POTENTIAL FOR HIGH LATITUDE HF DEGRADATION: HIGH

POTENTIAL SEVERITY OF HF DEGRADATION: MAJOR

EXPECTED HF PROPAGATION CONDITIONS: VERY POOR TO USELESS

POTENTIAL RISK FOR GEOSYNCHRONOUS MAGNETOPOUSE CROSSINGS: 40% PROBABLE

SUSPECTED SOURCE OF OBSERVED/EXPECTED ACTIVITY:

Recent CME and/or a well-placed, recurrent coronal hole. Minor to major storming already being observed.

EST. POTENTIAL GEOMAGNETIC IMPACT

SEVERE STORM : 25 %
MAJOR STORM : 35 %
MINOR STORM : 30 %
ACTIVE OR LESS : 10 %

PROBABLE SI ASSOCIATION : 10 %

EST. POTENTIAL IONOSPHERIC IMPACT

LOW LATITUDES : MINOR
MIDDLE LATITUDES : MAJOR
HIGH LATITUDES : MAJOR
POLAR LATITUDES : MAJOR

ESTIMATED GLOBAL IMPACT: MAJOR

ESTIMATED FORECAST PEAK PLANETARY 24-HOUR A-INDEX DURING STORM: 50

** End of Warning **

Date: 3 Nov 93 22:38:43 GMT

From: ogicse!uwm.edu!msuinfo!netnews.upenn.edu!mipg.upenn.edu!yee@network.ucsd.edu

Subject: Was 'Vanity' Call Signs, now paying for call signs

To: info-hams@ucsd.edu

>The only valid objection to paying for licensing services from the FCC
>that I've heard is that young people will be discouraged by one more
>financial barrier to getting and keeping a license.

I disagree that this is a valid objection.

Let us take a real world example of the same problem. Currently in the US there is a "controversy" concerning the raising of of grazing fees for cattle on federal land. The fees charged by the federal government is FAR less than what private owners charge. In defense of the lower fees, the cattlemen organizations claim that this would devastate the small-time cattlemen. In reality, however, the vast majority of the grazing licenses are held by organizations such as Metropolitan Life.

Similarly, hams are saying that higher fees would deter young people from becoming hams. I believe that we should pay what it costs to process the application- no more, no less (TANSTAAFL). Why are the complaints against higher fees self serving? I am sure that most children who become hams have parents (generally fathers) who are hams; they are not paying the fees themselves. Furthermore, if the child can not afford the few dollars (someone in this newsgroup quoted \$15), what makes ANYONE think he can afford to purchase a radio to get on the air? Even the cheapest homebrew QRP rig costs more than that. (Assuming that the kid does not have a well stocked junk box at home. Those that do probably have a ham for a parent.)

--

411 Blockley Hall		Conway Yee, N2JWQ
418 Service Drive		yee@mipg.upenn.edu
Philadelphia, PA 19104		
(215) 662-6780		"Specialization is for insects." -- Lazarus Long

Date: Thu, 4 Nov 1993 02:42:20 GMT
From: spool.mu.edu!howland.reston.ans.net!europa.eng.gtefsd.com!emory!kd4nc!ke4zv!
gary@decwrl.dec.com
Subject: We've lost him, Jim!
To: info-hams@ucsd.edu

In article <msattlerCFwMLx.9sD@netcom.com> msattler@netcom.com (Michael Sattler) writes:

>I've heard it said that it's possible to hear MIR, the Space Shuttle,
>OSCAR, etc. with an HT and position-plotting software, tables, etc.
>
>Is it possible (or likely or routine) to speak with orbitals via a
>5-watt HT and a rubber duck or mobile antenna (like a Diamond
>3-5 db gain model)?

It's possible, but it's neither likely nor routine. Mobile stations running about 100 watts seem to do quite well, and of course home stations with steerable beams do well. You can certainly hear Shuttle and MIR with a HT, even on the rubber ducky, but you have to remember that they can hear stations over a radius of hundreds of miles. Your little 5 watts gets lost in the pileup. If you're in an area with little competition, somewhere in the Pacific would be good, then your chance of getting through with a HT would be greatly enhanced.

Gary

--

Gary Coffman KE4ZV		"If 10% is good enough gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		for Jesus, it's good uunet!rsiatl!ke4zv!gary

534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: Tue, 2 Nov 1993 18:07:52 GMT
From: csus.edu!netcom.com!greg@decwrl.dec.com
To: info-hams@ucsd.edu

References <2558@arrl.org>, <gregCFvCt9.Ls8@netcom.com>,
<2b60u1\$8k@transfer.stratus.com>
Subject : Re: EMI/RFI from Hidden Fence

In article <2b60u1\$8k@transfer.stratus.com> fms@sw.stratus.com (Faith Senie)
writes:

>In article <gregCFvCt9.Ls8@netcom.com>, greg@netcom.com (Greg Bullough) writes:

>>

>>

>> Now, I *HOPE* that the receivers on the collar are very, very immune to
>> front-end overload, etc. Either blocking or falsing could have serious
>> results, indeed. This seems like something that would be worth a few
>> tests.

>>

>> Greg

>>

>

>I suspect that the collar receivers are NOT terribly immune to front-end
overload.

>When my folks got themselves a new dog a few years ago, they had one of those
>invisible fences installed at the house. Duke was lying on the floor under the
>TV set one evening, wearing his receiver collar, when Dad turned on the TV.

>Poor dog went ballistic. Apparently either the TV was overloading his collar,
>or else the magnetic field around the TV was inducing currents in the collar,
>and he was getting zorched. Ever since then, my folks have only put the collar
>on him when he goes outside, so that nothing in the house would hurt him like
>that again.

>

>I'm trying to remember if Duke was outside with his collar on when Dan was
>working K2BSA/1 from our truck. I suspect he'd have to be fairly close
>to the transmitter to get zapped, but you never can tell.

>

>Gives new meaning to the term 'hot dog'... :-)

>

Sounds like fodder for an ARRL Lab test, followed by an article in
QST, as well as working with the manufacturer (if cooperative) or
the FCC type-acceptance folks (if manufacturer not cooperative) to
get any and all of these devices fixed so that our transmissions

don't result in harm to critters. This seems like potentially a far more serious and explosive situation than fouling up "Jeopardy."

Greg

Date: 4 Nov 93 02:41:08 GMT
From: ogicse!uwm.edu!spool.mu.edu!agate!usenet.ins.cwru.edu!odin!
trier@network.ucsd.edu
To: info-hams@ucsd.edu

References <199310261649.JAA01502@ucsd.edu>, <2ajofp\$stp@msuinfo.cl.msu.edu>,
<8257.2cd7f39e@hayes.com>
Subject : Re: BAUD VS BAUDS

In article <8257.2cd7f39e@hayes.com>, Bill Coleman <bcoleman@hayes.com> wrote:
>Oh, and there's no such thing as "bauds." Like sheep, the plural requires no
>"s" suffix.

As a friend recently pointed out to me, saying "1200 bauds" is very much like saying "1200 Hertzies". Both units have identical singular and plural forms -- it's not right to add an "s" to either.

Stephen

--
Stephen Trier KB8PWA "[I]t's time to put your power supply under the
Work: trier@ins.cwru.edu cardboard pyramid in the fridge with the oranges
Home: sct@po.cwru.edu and razor blades under it."
- jangus@skyld.tele.com

Date: Tue, 2 Nov 1993 21:42:33 GMT
From: munnari.oz.au!spool.mu.edu!howland.reston.ans.net!europa.eng.gtefsd.com!
library.ucla.edu!news.ucdavis.edu!othello.ucdavis.edu!ez006683@network.ucsd.edu
To: info-hams@ucsd.edu

References <051346Z27101993@anon.penet.fi>,
<1993oct28.025204.11403@bongo.tele.com>,
<1993oct28.073620.1@matrix.cs.wright.edu>davis
Subject : Re: How to monitor police digital communications

Hello All,
Well I'm not corrupt, gay, a no-coder or even cruel to animals but I am interested in monitoring digital public safety transmissions and digital SCA transmissions. What are tehe

transmission schemes? I am
now building the the 741 decoder and have some software for it. Is there police
or sca decoder doftware
available out there? cuold I decode any of this stuff w/my TNC-2? If you are
afraid of disseminating this on
the whole net feel free to e-mail it to me. If you are really paranoid you can
even send for a copy of my
public key!

cheers and 73
Dan

--

* Daniel D. Todd Packet: KC6UUD@WA6RDH.#nocal.ca.usa *
* Internet: DDTODD@ucdavis.edu *
* Snail Mail: 1750 Hanover #102 *
* Davis CA 95616 *

* I do not speak for the University of California.... *
* and it sure as hell doesn't speak for me!! *

End of Info-Hams Digest V93 #1308

